News Briefs

JILL BUCHHOLZ, Editorial Assistant

Midwest utilities to buy Canadian electricity

● Six Upper Midwest utilities have signed a memorandum of understanding to purchase 550 MW of electricity from the Manitoba Hydro-Electric Board beginning 1996 through 2012. The group, called the Upper Mississippi Power Group, consists of Northern States Power Co., United Power Association, Otter Tail Power Co., The Southern Minnesota Municipal Power Agency, Interstate Power Co. and Dairyland Power Cooperative. The agreement is contingent upon the Canadian utility building a power line from the Winnipeg area to the U.S. border and the American utilities building a power line from that point to their service areas. The Upper Mississippi Power Group is expected to sign a power purchase agreement by this summer.

Con Ed proposes common equity reduction

● Consolidated Edison is awaiting the New York State Public Service Commission's decision on its proposal to reduce its common stockholder equity by about $500 million. According to the company, the proposal stems from a PSC ruling last November that Con Edison's common equity, currently about 53.5 percent of its capital structure, should be lowered and that the company should have an "equity ratio" of no more than 50 percent. In its PSC filing, Con Edison proposed: 1) Repurchase and retirement of an additional $200 million of common stock, and 2) transfer of $300 million of common equity from the company's capital structure to a new, wholly owned, non-regulated subsidiary.

Cooling pond at HL&P's Cedar Bayou Station becomes wildlife refuge

The cooling pond of Houston Lighting & Power Co.'s Cedar Bayou Electric Generating Station, located 30 miles east of Houston, has become a refuge for rare species of birds. HL&P owns 4,000 acres of coastal marsh, including the 2,600-acre cooling pond where the birds find warm, food-filled water discharged by the generating station. The pond, which is closed to the general public, has become "...one of the finest birding areas on the upper Texas Gulf Coast," according to Frank Schlicht, a manager in HL&P's Environmental Protection Department.

In This Issue

Editorial 4

Guidelines for labor negotiations are offered by the director of a Chicago-based labor research organization. 8

Calendar 15

Arkansas Power & Light saved about $225,000 and the loss of a substation by using a unique process to reconstruct a 100-year-old storm drain. T/D 22

Productivity improvements of 10% and better work-order management results from incorporation of new software at Minnesota Power & Light Co. G 29

Readers' Service 33

New Products 35

New Literature 38

Personnel 42

Regulatory Review 44

Management Methods 46

EL&P readers whose responsibilities include both Generation and Transmission/Distribution receive both technology sections. Other readers receive the technology section that applies to their respective area of responsibility. The Generation edition is indicated by a single dot (•) in the upper right corner of page 1; the T/D edition carries two dots (••). All readers receive EL&P's industry news section.

PGE forms new holding company

● Portland General Electric Co. has become a wholly owned subsidiary of its new holding company, Portland General Corporation. Three of PGE's subsidiaries, Western EnerTech, Columbia Willamette Development and Columbia Willamette Financial Group, were transferred to Portland General Corp., along with PGE's minority interest in Synektron and its limited partnership interests in Montgomery Ventures and Oregon Graduate Center Lands.

Niagara Mohawk's costs increase for Nine Mile-2

● Niagara Mohawk Power Corp.'s latest cost estimate for the Nine Mile Two nuclear plant is $5.526 billion. The estimate, which includes construction costs of $3.827 billion and financing costs of $1.699 billion, is based on the remaining work that needs to be done to get the plant into commercial operation by Jan. 1987. Owning 41 percent of the project, Niagara Mohawk said its share of the total estimate is about $2.287 billion. In January, the utility had announced a delay in fuel loading and estimated the project completion cost at $5.35 billion.

Westinghouse waste system marketed in Japan

● Westinghouse Electric Corp.'s waste technology division has given Ishikawajima-Harima Heavy Industries Co., Ltd., (IHI), exclusive marketing rights in Japan for its low-level radioactive waste storage and disposal system. The system is designed to accommodate most low-level radioactive waste packages and can be used for both interim and long-term waste storage. IHI plans to incorporate the system in its upcoming Shimokita and Horonobe waste projects and on other utility and government-related projects, according to Makio Amano, IHI's managing director and general manager of energy plants.

EPA says Hawaii complies with clean air standards

● The Environmental Protection Agency (EPA) has determined that Hawaii is in statewide compliance with the air quality standards of the federal Clean Air Act. The EPA decision lifted a ban on construction of major generating units at both Kahe and Kahuli, however Hawaiin Electric Co. Vice President of Engineering Richard O'Connell said there are no plans for installation of any major units at these locations in the near future.

Wisconsin Electric applies for holding company

● Wisconsin Electric Power Co., the first utility in the state to file an application to form a holding company, is awaiting approval from the Wisconsin Public Service Commission. If approved, Wisconsin Energy Corp. will become the new parent company of Wisconsin Electric, Wisconsin Natural Gas Co. and several non-utility subsidiaries. The utility expects all approvals on the filing to be received by the end of the year.

Independent audit conducted at Clinton Power Station

● An independent audit was recently conducted at Illinois Power Company's Clinton Power Station. Three firms, Theodore Barry & Associates, Ebasco Services, Inc. and Burns and Roe, Inc., audited top level management, procurement and construction, and quality assurance. All three found that management performance was generally reasonable. Another audit, conducted by Touche Ross and Co. and the Neilsen-Wurster Group, generally agreed with the other reports, except on one point. The two firms, hired by the Illinois Commerce Commission, contend that a portion of the cost associated with stop work actions issued in 1982 was unreasonable. The company believes its management of the Clinton Power Station was satisfactory and that cost disallowances are not appropriate.

Westinghouse opens research facility

● Westinghouse Electric Corp. has opened a $2 million facility at its Research & Development Center in Pittsburgh. The float-zone research is aimed at production of high-quality single-crystal silicon for both advanced power semiconductor devices and specialty integrated circuits. The Electric Power Research Institute, the Defense Advanced Research Projects Agency, the U.S. Army and the U.S. Air Force are all planning to sponsor research at the facility, which is expected to be fully operational this month, according to Westinghouse.

Washington Public Power approves $2.5M settlement

● The Executive Board of the Washington Public Power Supply System today approved a $2.5 million settlement of a lawsuit against the Howard P. Foley Co. The suit, filed in August 1983, alleged Foley had conspired with other defendants to rig bids and fix prices for work done on the Supply System's Nuclear Projects 1 and 4 at Hanford. Foley, as part of the joint venture of Foley, Wismer and Becker, was awarded the main electrical contracts on projects 1 and 4 in 1978. The Supply System will receive 90 percent of the settlement and Kansas Power & Light, a partner in the suit, will receive 10 percent. In addition, Foley will relinquish $1.27 million in claims against the Supply System. Litigation continues against Wismer and Becker Contracting Engineers, Inc.

Waste-to-energy facility construction is underway

● Westinghouse Electric Corporation's Resource Energy Systems Division has awarded Daniel International Corp., a unit of Fluor Corp., a $7.8 millon contract for construction of the Bay Resource Management Center in Panama City, FL. Work on the waste-to-energy facility is currently underway and is scheduled for completion in March 1987, according to Fluor Corp.

Defense activities get larger slice of DOE budget

WASHINGTON, D.C.—Proposals to privatize the federal power marketing administrations and transfer the uranium enrichment program to the private sector are among the highlights of the U.S. Department of Energy's $12.1 billion fiscal year 1987 budget request.

Approximately $128 million more than 1986's budget, the submittal also proposes placing a moratorium on further development and fill of the Strategic Petroleum Reserve, selling the Naval Petroleum Reserves and turning over responsibility for funding of conservation grant programs to the states.

The budget request shows increased funding for Defense Production and Support, and Waste Activities. (See table.) Budgets were cut in the areas of Research and Development, Business Enterprises, Grants and Other Energy Functions, and Departmental Management.

While the Defense Production and Support budget request increased by $498 million, funds for R&D fell seven percent to $4.5 billion.

Funding increases

Funding increases were requested for R&D programs in General Science, Environment, Supporting Research and Technical Analysis, Weapons Research, Development and Testing, and Naval Reactors Development. (See table.)

DOE's budget calls for decreases in funds for Magnetic Fusion, Nuclear Energy, Fossil Energy, Conservation, Solar and Other Renewables, and Electric Energy Systems and Storage.

Rep. Edward J. Markey (D.MA), chairman of the House Subcommittee on Energy Conservation and Power, said an analysis by his subcommittee of DOE's budget reveals a shift of $1 billion from civilian energy programs to weapons programs.

"It is shameful to see important energy programs reduced or eliminated so that funds can be shifted to weapons production and Star Wars," he said in a statement. "The continued militarization of the Energy Department must be ended."

Markey's report noted that DOE has set aside about $600 million of the total budget request for President Reagan's Strategic Defense Initiative.

Weapons activities grow

According to the analysis, DOE's weapons activities have grown from 38 percent of the department's budget in 1981 to 65 percent in the FY 1987 request. Between 1981 and this year, the report said funding for civilian energy programs dropped from $5.4 billion to $4.3 billion.

The analysis found that among nonnuclear energy programs, conservation would be hit the hardest with an overall 82 percent cut. Grant programs for low-income weatherization and schools and hospitals would be eliminated, and research would be cut by more than 58 percent.

Markey's subcommittee said fossil energy research would be slashed 53 percent to $150 million, and renewable energy research would be reduced 47 percent to $92 million.

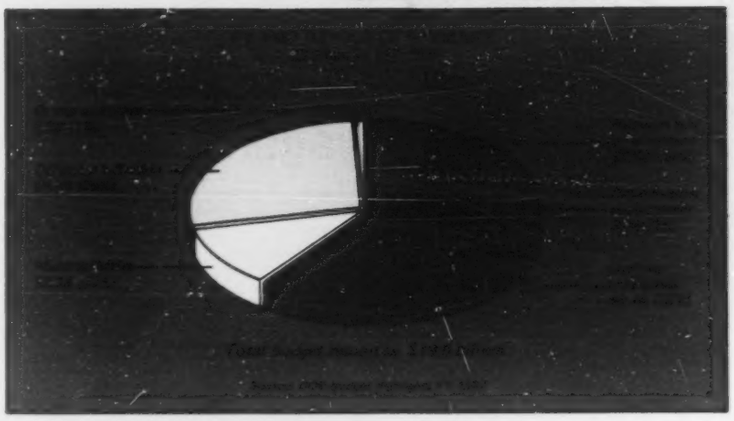
In the fossil energy area, magnetohydrodynamics would be eliminated, and coal liquefaction, combustion, and gasification research would be severely cut.

Programs in the solar and renewable area relating to photovoltaics, wind energy, and biofuels would be reduced by more than 50 percent.

The nuclear fission request is 17 percent higher than last year and the nuclear fusion request represents a nine percent drop.

DOE's nuclear energy R&D budget includes cuts for all areas except Space and Defense Power Systems (+$51.5 million); Advanced Nuclear Systems (+$4.1M); and, Program Direction (+$1.5M). Programs being reduced include Light Water Reactors (−$7.1M); Advanced Reactor R&D (−$75.1M); Facilities (−$10.4M); and, Water Cooled Breeder Technology (−$5.2M).

Among the most controversial aspects of the budget are President Reagan's plans to turn over several DOE business enterprises to private ownership in order to help lower the deficit.



Also, the budget states that fill activities for the Strategic Petroleum Reserve will be stopped this year when 500 million barrels of crude oil are in storage for emergency use.

PMA sale proposed

In a DOE publication outlining the 1987 budget, the agency said, "Legislation authorizing the sale of the Naval Petroleum Reserves and priva-

Continued on page 7

RESEARCH AND DEVELOPMENT

	Budget Authority (in millions)	
	FY 1986 Estimate	FY 1987 Request
General Science	$ 661.4	$ 773.4
Magnetic Fusion	365.4	333.0
Nuclear Energy	377.4	332.7
Environment	228.6	273.8
Supporting Research and Technical Analysis	519.7	551.9
Fossil Energy	343.0	150.1
Clean Coal Technology	(99.4)[a]	(149.1)[a]
Conservation Research and Development	170.9	71.2
Solar and Other Renewables	173.6	91.9
Electric Energy Systems and Storage	28.8	16.2
Weapons Research, Development and Testing	1,729.8	2,101.2
Naval Reactors Development	535.7	593.6
Subtotal	$5,134.3	$5,289.0
Use of Prior Year Balances and Other Adjustments	-264.8	-750.0[b]
TOTAL, RESEARCH AND DEVELOPMENT	$4,869.5	$4,539.0

a Non add; transfers of previously appropriated funds.
b Includes $584.2 million of prior year unobligated balances in the Uranium Enrichment program.

DEPARTMENT OF ENERGY

	Budget Authority (in millions)	
	FY 1986 Estimate	FY 1987 Request
Research and Development	$ 4,869.5	$ 4,539.0
Defense Production and Support	4,332.6	4,830.8
Waste Activities	1,363.6	1,774.3
Business Enterprises	869.4	691.4
Grants and Other Energy Functions	386.0	113.5
Departmental Management	150.3	151.1
TOTAL, DEPARTMENT OF ENERGY	$11,971.6	$12,100.1

Source: DOE Budget Highlights FY 1987

Electric growth should be strong in '86, says forecast

WASHINGTON, D.C.—A fall in real electricity prices and a growing economy should help keep electric output at a four percent growth rate in 1986, according to a new forecast from John O. Sillin.

Working as a utility analyst for the large accounting firm of Grant Thornton, Sillin recently updated his annual electric load forecast. In it he says, "Electric growth in 1986 will be similar to that experienced in 1984, when electric output increased by approximately 5.5 percent on a weather adjusted basis."

Assuming that the U.S. economy grows at least four percent this year, Sillin forecast that electric output should increase by at least a like amount.

"A boom type situation with economic growth above five percent would likely result in growth in electric output approaching six percent," he said in his update. "Clearly the determining factor regarding growth in electric output will be the performance of the economy."

The analyst predicts small to moderate economic growth in the first few months of 1986 and a strong third quarter. A control on inflation, declining interest rates and growth in the financial markets should spur further economic growth this year, said Sillin.

Output up

In 1985, Sillin noted that electric output (the total amount of electricity made available for consumption) was up about 2.5 percent over 1984, resulting in a total increase of output of 11 percent since 1982 (see table p.9).

In his forecast, he reported that residential electricity consumption rose 2.5 percent in 1985 and commercial use increased 5.5 percent last year. Industrial consumption was flat in 1985, said Sillin.

"The strong growth in electric sales will make it increasingly easier for utilities to absorb capital additions into the rate base," he wrote. "With revenue increases being obtained from higher kilowatthour sales, the need to continue to seek rate relief will continue to abate."

If the nation experiences another year of strong electric growth, Sillin said it will be realized that new generating capacity is needed.

He said that midway through 1986, "it should be obvious that a fourth straight year of strong positive growth in electric output is occurring, at which time industry leaders, regulators, and policy makers will recognize the urgency in re-establishing the viability of investing in new central station generating plant."

A movement to commit

Sillin explained that he expects plants that are currently in a state of hiatus like Limerick-2 and Seabrook-2 will be completed first. "There will be a movement to firmly commit to those types of plants," he stated.

Sometime in late summer, Sillin believes that the regulatory community will become more and more convinced of lessening electricity supplies and

Continued on page 9

March story contained two errors

Two errors were made in the March 1985 *Electric Light & Power* front page story *"Revenue, earnings increase for most electric utilities in '85"*.

Central South West Corporation had experienced a two percent decline in revenues last year, not a 5.2 percent increase as reported in the story.

Also, Boston Edison's earnings per share for 1985 and 1984 were incorrectly listed in the accompanying table as $3.34 and $3.12. Those figures are the company's dividend payments for 1985 and 1984. The utility's EPS should have been listed in the table as $5.03 for 1985 and $4.85 for 1984.

Electric Light & Power apologizes for the oversights.

Defense activities . . . from page 3

tization of the five Power Marketing Administrations (PMAs) will be proposed in 1986...It is assumed that the Naval Petroleum Reserves will sell at prices comparable to private oil field transactions, and that the PMAs will be sold for a fair return to the taxpayer."

The PMAs, which sell electricity from Federal hydropower projects, include the Alaska, Bonneville, Southeastern, Southwestern and Western Area administrations.

DOE said non-Federal owners could operate the PMAs as efficiently, if not more efficiently than the government. The agency expects to sell the Bonneville and Southwestern Administrations in FY 1988, with all others being sold by FY 1991.

Richard Pelz, former chief counsel for DOE's federal power marketing division, resigned his position in January protesting the planned sale.

"I cannot in good conscience work to implement this proposal because I believe it is economically disruptive, fiscally irresponsible, administratively harmful, and intellectually dishonest," stated Pelz in a statement announcing his resignation.

The budget proposes that BPA be sold by Oct. 1, 1987 for $8.85 billion.

Pelz said the sale will probably make the government's situation worse in future years, because it will lose the annual revenue produced by the five PMAs. He pointed out that each year the PMAs pay back more to the U.S. Treasury than they take in.

Unlike the other PMAs, BPA operates on a self-financed revolving fund basis. It requires borrowing authority from the government and not appropriations.

Opposed to the sale

Also opposed to the sale idea is the American Public Power Association (APPA). "The proposed sellout would put on the auction block the government's 130 hydroelectric plants which are vital sources of electricity—at rates based on cost, not profit—for many millions of households, businesses, industries and farms in 34 states," said APPA in a position paper on the subject.

"In fact," stated APPA, "the permanent loss of valuable, productive assets would cost the government billions of dollars in future revenues."

A report from the Cato Institute, a Washington, D.C.-based public policy research group, says the sale of BPA would benefit both taxpayers and Northwest energy consumers.

Author Peter D. Cooper says, "Selling the system's assets would ...restore the free market to an economic sector that is drowning in the red ink and failed projects of government regulation.

"Freedom of contract should replace government coercion, leaving special interests to fend for themselves and leaving consumers and utilities free to decide, without the distorting effects and hidden costs of government subsidies, what facilities and resources will meet their future energy needs," said Cooper.

The National Governor's Association adopted a policy statement Feb. 25 at their annual winter meeting opposing the sale of the PMAs. The governors warned that they believe "selling federal power projects will seriously jeopardize the economic vitality of individual states, entire regions of the country and the nation as a whole by forcing up electric costs for consumers. The governors support continued federal ownership of federal power projects."

A special task force, headed by DOE's William Silvey, was formed in late February to develop strategy for selling the PMAs.

Study says public power is cheaper in large cities

WASHINGTON, D.C.—Residential electric service costs about $10 less in a big city with a public power company than in one served by a private company, says the American Public Power Association (APPA).

In a new study of utilities serving the 30 largest U.S. cities, APPA reports that costs for 500-kWh of electricity average 6.5 cents, or $32.50 per month in the service areas of the nine public power systems surveyed.

While the 24 largest private electric companies charge an average of 8.5 cents, or $42.50 per month for the same amount of electricity. Three cities in the survey have both public and private utilities.

APPA said its statistics were taken from reports submitted to the U.S. Energy Information Administration. The study looks at winter rate charges from Jan. 1985 for lighting, small appliances, refrigeration and cooking.

Electricity prices ranged from 2 cents per-kWh at Seattle City Light to Consolidated Edison's average of 14.9 cents.

According to the association, all nine publicly-owned utilities charge less than the private company average of 8.5 cents per-kWh. The nine utilities serve Seattle, Nashville, Memphis, Los Angeles, San Antonio, Columbus, Cleveland, Phoenix and Jacksonville.

The cities served by private utilities with the highest cost per-kWh include San Diego (13 cents), Philadelphia (10.8 cents), Boston (10.8 cents), El Paso (10.5 cents), Pittsburgh (9.9 cents), Phoenix (9.3 cents), and Chicago (8.7 cents).

APPA Executive Director Alex Radin noted he was "pleased that public power systems are taking the lead in providing reasonable rates for the category of customers which includes many low-income households."

The study was published in APPA's *Public Power* magazine.

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- Somerset Steam Electric Station, completed six weeks ahead of schedule and $70 million under budget, won *Power* magazine's 1985 Environmental Protection Award.
- A 20 MW, 85,000 lb/hr steam-producing plant was Hawaii's first major cogeneration facility.
- Samchonpo 1 and 2 comprise Korea's first coal-fired power facility.

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Inquire R.S. 3

Clean coal program . . . from page 1

the right direction.

"It's more suitable," he said, "whether its acceptable, I'm not sure."

According to Yamagata, coalition members have many questions that need to be answered. He said it is too early to tell what effect the new PON may have on potential proposers.

Yamagata believes that projects will be looked at on a case-by-case basis to determine whether repayment is necessary.

DOE's Porter explained that the program funds can't be called loans or grants. "We're providing financial assistance," he said. If a project fails in the commerical operation stage, the owners would not be required to repay DOE, noted Porter.

"Many of these projects will be on the threshold of commerical opportunity," said Porter. "The companies involved stand to benefit quite a bit. DOE believes that if the taxpayers' money is being put at risk, they must be able to recoup their investment."

According to the department spokesman, DOE does not feel repayment will deter the number of proposals it receives.

U.S. Senate Minority Leader Robert C. Byrd (D.WV) told attendees of the Clean Coal conference that the future of the program will now be determined by "you in the boardrooms of companies across the nation."

Said Byrd, "We in the Congress have worked to provide a framework which makes good business sense to the private sector, and which takes harsh fiscal realities into account. I know there is some concern that DOE seems to be overly enthusiastic in making those fiscal realities a bit more harsh than anyone intended."

The senator noted that he met with Herrington to ensure that the program gets off on the right foot.

NCA's Bagge said, "Clean coal can be buried and never heard of again if it is submerged in other research efforts, or if it is cut off from industry by onerous restrictions."

Money for coal technologies should not be spent searching for breakthrough technology, according to the association head. All of it should be earmarked for fostering the acceptance and growth of technology ready for the mainstream.

Bagge pointed out that the Gramm-Rudman-Hollings proposition may make it impossible to provide the $5 billion for clean coal R&D called for by the recent special envoy's acid rain report. (See *EL&P* Feb. p.1) That, he said, makes the $400 million clean coal program evermore important.

Coal use rises

According to Edison Electric Institute figures, the electric utility industry increased its coal use more than 60 percent from 1973 to 1983. It said there are approximately 1,300 coal-fired units in the U.S. generating more than 55 percent of the nation's electricity.

The Environmental Policy Institute's (EPI) John McCormick believes the future of the program depends "...upon the support of environmental and down-wind state legislators who believed the program is an important component of the continuing acid rain debate in the nation."

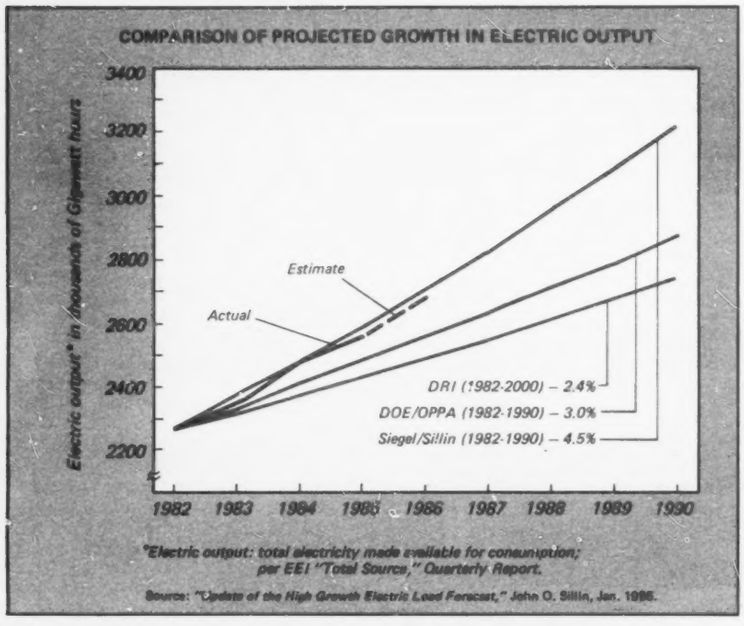
McCormick said the institute doesn't think $400 million will be enough to provide incentives to the many worthy utility boiler retrofit proposals likely to be submitted. His group recommends that DOE give highest priority to proposals related to the commercial application of clean coal technologies for retrofit and new-source boilers.

If the program favors large synfuels-type projects and takes on the look of a mini synfuels corporation, McCormick warned the conference audience that EPI and others will do all they can to terminate the program.

Yamagata, of the Clean Coal Technology Coalition, said project selection criteria which Congress drafted as a guide for DOE indicates that projects which expand the use of a technology already in commercial use also will be eligible for the program.

He noted the program will be limited to technologies, techniques, or processes that will be ready for commerical application during the 1990s. DOE also is required to provide Congress with a report on all the projects submitted once the selections have been made. Congress then has thirty days to look over the selections.

Electric growth forecast . . . from page 3



send out strong signals to the utilities. Sillin said this should prompt the industry to prepare for new capacity additions.

Reserve margins

According to the forecast, reserve margins should continue shrinking this year, as growth outpaces new capacity additions. "And if the 1986 summer is a warm one," wrote Sillin, "scattered reliability problems—though not necessarily severe ones—may develop."

He told *EL&P* that one region to look at is the Northeast, where a growing population could eventually cause problems.

Sillin, who said he is bullish on the economy and the future of electricity growth, has been forecasting a strong recovery for the industry since the early 1980s along with John R. Siegel of the Atomic Industrial Forum.

"There are a number of things in the economy that indicate we're in a period of sustained economic growth," he said. Sillin pointed out that inflation is under control; interest rates are down; and, energy won't be the disruptive force that it was in the 1970s.

Tend to confirm

In a March interview, Sillin noted that recent developments in the economy tend to confirm his forecast of four percent electricity growth. With the stock market continuing to do well and the U.S. dollar weakening, Sillin predicts an eventual increase in domestic manufacturing.

"A stronger economy for domestic producers equates to increased load growth," he said.

And, as long as the energy markets stay deregulated, Sillin feels energy prices will be reasonably stable.

"The combined effect of increased sales, the continuing winddown of major construction programs, and stable or falling fuel costs will be another real decrease in electricity prices in 1986," he said in the update. "The decrease will likely fall in the two to three percent range."

Electricity prices down

According to the Grant Thornton analyst, real electricity prices have been down a total of three percent since 1982. He expects that trend to continue over the next few years. For 1986, Sillin forecasts a price drop, on an inflation adjusted basis, of between two and three percent.

Catching-up phase

"In my view," said Sillin, "the 1980s are a catching-up phase." In the 1990s, Sillin forecasts that economic growth and electricity growth will moderate at an annual rate of three percent.

Sillin said that recent conversations with utility industry executives indicate that he and Siegel are not the only ones forecasting strong electricity growth.

In for a roll

"I think that many folks feel that the industry may be in for a little roll," he declared.

New coal technology needed

WASHINGTON, D.C.—Only a fundamental improvement in coal plant technology can effectively respond to the increasing limitations on coal-fired electricity generation and restore economic progress in electricity production, believes an official of the Electric Power Research Institute.

"As a result," said EPRI Coal Combustion Systems Vice President Kurt E. Yeager, "the electric utility industry today stands on the threshold of change in its technological base for coal-fired generation."

He said successful new technology must satisfy two basic requirements. First, Yeager noted, they must have reduced cost and risk. Secondly, the new technologies must have a reduced environmental control impact.

Must be advanced

"To achieve these goals," stated Yeager, "the advanced coal technologies under development by the electric utility industry and EPRI must be rapidly advanced to commercial application."

Four major national objectives for a transition to clean coal technology need to be achieved. He said they are:

1. Establishment of a sounder scientific base to determine the need and appropriate timing of environmental controls.
2. Demonstration of an array of potentially more effective retrofittable emission control alternatives than the current FGD (scrubber) technology.
3. Demonstration of advanced coal utilization technologies over a sufficient range of conditions so as to establish performance, cost and reliability.
4. Establishment of incentives to encourage the prompt commercial implementation of these technologies.

Technology update

Yeager discussed several coal technologies. He said Furnace Limestone Injection must still be considered a speculative and limited option, but that additional demonstrations are planned to evaluate the technology over the range of boiler design and coal types.

Fluidized Bed Combustion (FBC) technology is being aggressively pursued by the industry, said Yeager. He pointed out that more than 40 industrial boilers are now in operation, or under construction in the U.S.

Results of a recent survey of utility boilers indicate that as much as 25,000 MW of installed electric generating capacity may be suitable for conversion to FBC technology, he noted.

Two possible candidates for clean coal funds are pressurized fluidized bed combustion power plants being planned by Wisconsin Electric Power Co. and American Electric Power Co.

Another new important coal technology is gasification combined cycle (GCC). He pointed to the current demonstration of the 100 MW Cool Water station in California. "Over its first 18 months of operation," Yeager stated, "the plant has proved to be both reliable and environmentally superior."

EPRI said it has already spent $500 million on clean coal R&D programs. In January, the institute announced a five-year, $25 million effort that will team hardware suppliers from around the world in designing a new generation of more efficient coal-fired plants. (See *EL&P* March p.15)

Edison Electric Institute study says rate increases less in '85

WASHINGTON, D.C.—Rate increases granted to investor-owned electric utilities in the first three quarters of 1985 were $593 million less than during the same period in 1984.

According to the Edison Electric Institute's (EEI) Quarterly Rate Action Survey, utilities were granted $3,019 million in rate relief during the first three quarters of last year. In addition, $2,850 million of increases were filed in 1985's third quarter, and the backlog of pending cases was $7,870 million.

Reversing a trend of the previous four quarters, EEI said that increases in the third quarter of 1985 were up to $1,473 million, a 29.4 percent increase over 1984's figure.

The $431 million granted in 1985's second quarter was the smallest quarterly increase in the past ten years, said the survey.

EEI pointed out that the $2,850 million filed in the third quarter was a little less than the total filings for the first two quarters of the year.

Survey results show that the $6,993 million of rate increases requested for the year ending Sept. 30, 1985 was approximately half the $12.8 billion filed in the record year of 1983.

Third quarter requests

Rate increase requests pending at the end of the third quarter of last year rose 10.4 percent to 127 cases, compared to the same period in 1984 said EEI. However, the survey found that the dollar amount of those requests dropped 2.3 percent to $7,870 million, from the $8,055 million requested in 1984.

The Edison Electric Institute's Rate Regulation Dept. estimates that state commissions allowed an average return on common equity of 14.91 percent during the third quarter of 1985, as compared to 1984's 15.3 percent. In cases decided in the third quarter, EEI said regulatory lag averaged 9.4 months.

State commissions allowed an average of 50.5 percent of the amounts requested during the period, up from 45.2 percent in 1984.

EEI's survey is based on replies received from investor-owned electric utilities. Applications for fuel and tax adjustments were excluded from the survey.

ANNUAL ELECTRIC RATE ACTIONS
This tabulation represents companies which have reported on a quarterly basis to EEI.

	Year 1984		Jan.-Sept. 1985	
	Number of Actions	Total $ Amt. ($000)	Number of Actions	Total $ Amt. ($000)
Filed During Period (1)				
Increases	121r	7,524,201r	102r	5,772,996r
Decreases	2	8,269	4r	27,092r
Pending at End of Period (2)				
Increases	103r	7,887,199r	127	7,870,018
Decreases	2	8,258	0	0
Approved During Period				
Increases	186	4,746,036	88	3,019,149
Decreases	19	175,045	10	15,242
Withdrawn During Period				
Increases	3	158,990	2	83,268
Decreases	0	0	1	306
Denied During Period				
Increases	7	451,178	4	377,219
Decreases	0	0	0	0

Notes: (1) Does not include changes filed and either approved, withdrawn or denied during same quarter.
(2) These figures are not in addition to the corresponding filed figures.
r = revised.
Source: Edison Electric Institute

FINALLY.
Coen's Forgettable Scanner

Coen's Series 7000 Scanner System is so simple and rugged you'll actually forget it's there.

Successful installation of a flame detection system eliminates needless downtime. Coen's system performs so consistently you can forget it.. and that *means saving you time and money!*

Coen's "forgetable" Series 7000 Scanner System includes:

- Models IR 7000 and UV 7000 Series for reliable flame detection in oil, gas, coal, biomass and combination fuel applications.
- *Model IR 7200 with 2-color head* for the flexibility required in difficult applications such as recovery boilers and lime kilns.
- Simplest optimum sighting in industry with Coen electronically assisted sighting indicator.
- Automatic, self-checking diagnostics circuits and convenient owner serviceability.

Coen...quality products that perform

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Burner Management Division
Coen Company Inc.
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Burlingame, CA 94010
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Don't get too excited... but Beckwith has an Overexcitation Relay!

Protects Generators, Transformers and Motors.
The M-0299 PRIDE Overexcitation Relay protects equipment from the destructive effects of excessive Volts per Hertz.

Matches the Thermal Characteristics of the Equipment.
Alarm and trip setpoints and time delays can be programmed over a wide range of settings. A decending trip curve of time vs. V/Hz can be programmed to match the manufacturer's curve for the protected equipment. A reset time can be set to match the cooling characteristics of a machine should conditions improve short of a trip.

Operates Properly Under Adverse Conditions.
The M-0299 passes the Surge Withstand Capability, Fast Transient and Radio Frequency Interference Tests and operates over a temperature range of −30° to +70° C.

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11811 62nd St. N., Largo, Florida 33543 813/535-3408

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